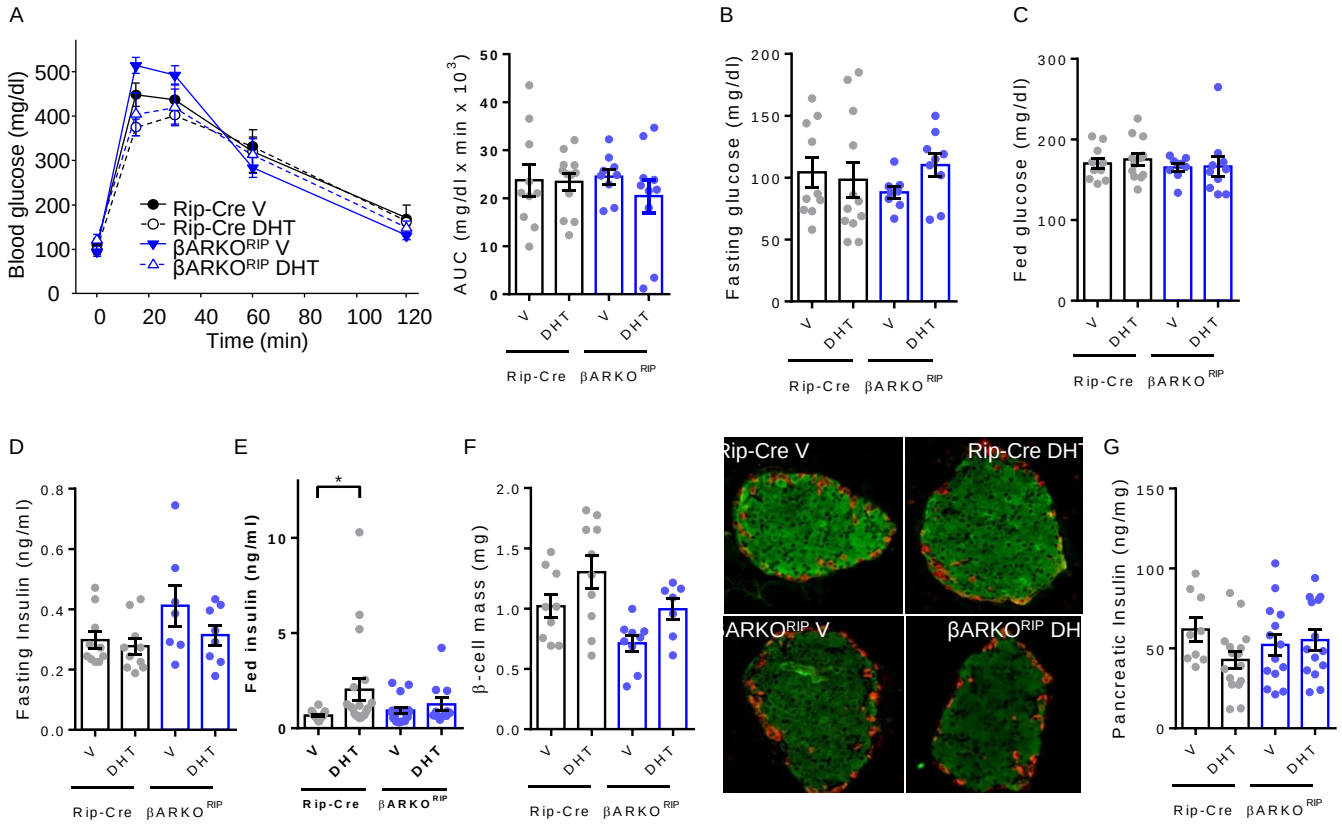

Figure S1. Excess AR activation in β-cells and CNS does not alter glucose homeostasis in female mice on a NC diet. (A) Blood glucose during a GTT and AUC. (B) Fasting blood glucose concentration. (C) Random fed blood glucose. (D) Fasting serum insulin concentration. (E) Fed serum insulin concentration. (F) Beta-cell mass and representative images. (G) Pancreas insulin content. Mice were 12-13 weeks and fed on a normal chow (n = 7-16). Results represent the mean ± SEM.

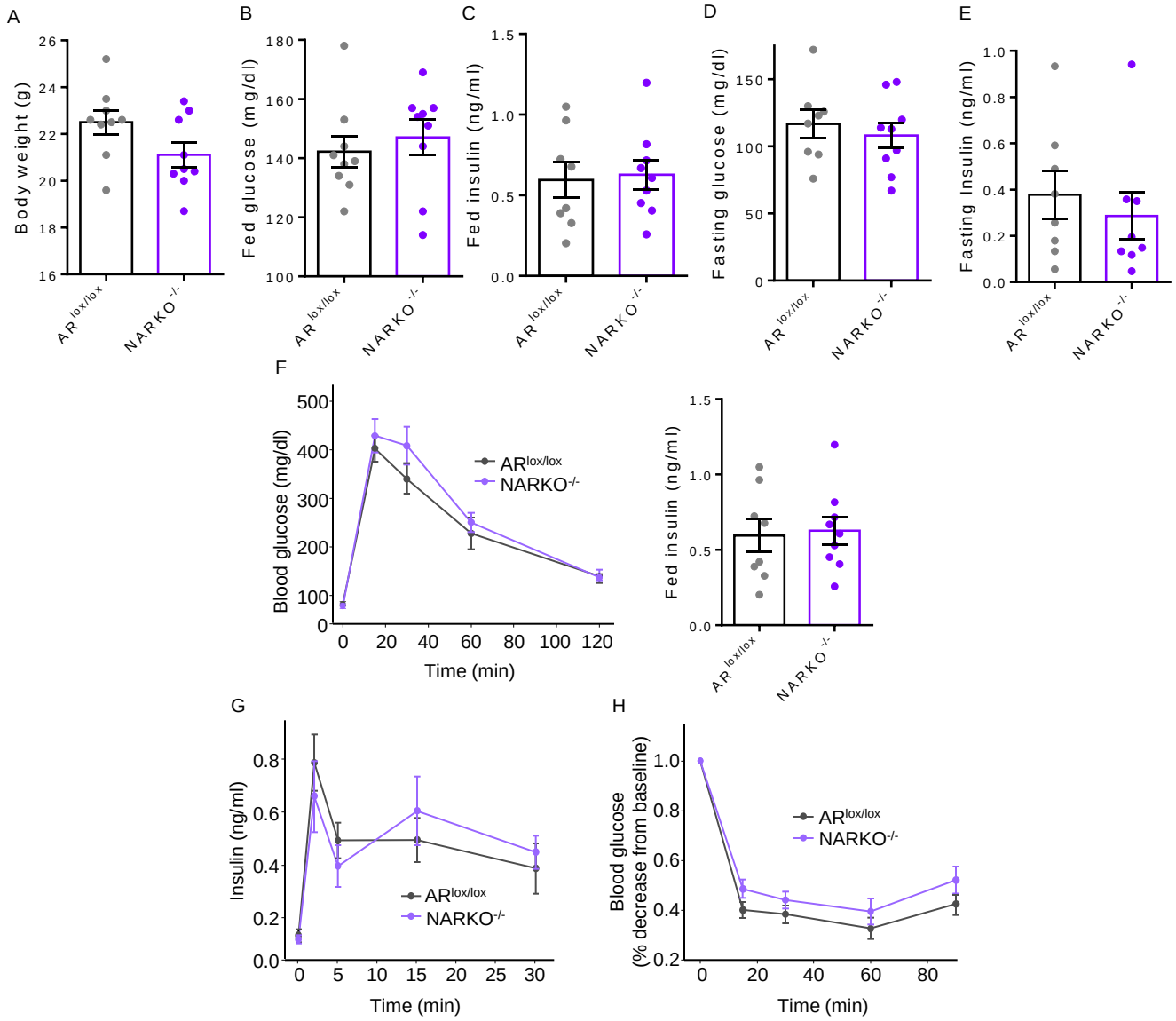

Figure S2 Figure S2. Characterization of the NARKO$^{-/-}$ mouse. (A) Body weight. (B) Random fed blood glucose. (C) Fed serum insulin levels. (D) Fasting blood glucose. (E) Fasting serum insulin levels. (F) Glucose tolerance test and its AUC. (G) Insulin secretion during a GSIS. (H) Blood glucose percent decrease during an ITT. Mice were fed on a normal chow and studies were performed at 8 weeks of age. (n = 8-9). Values represent the mean ±SEM.

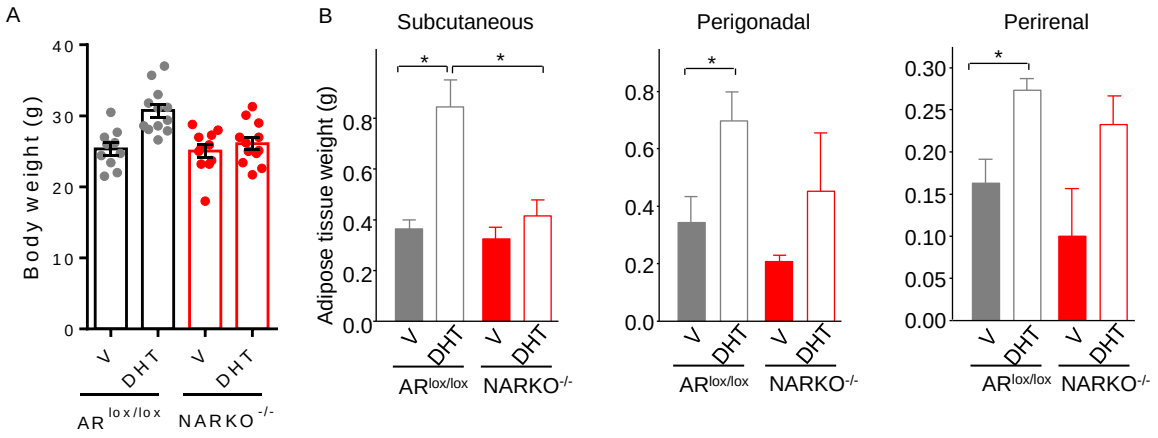

Figure S3. Body weight and adipose tissue mass in WT and NARKO mice exposed to DHT.
(A) Body weight in control ($AR^{lox/lox}$) and NARKO mice fed a HFD for 9 weeks (n = 13-16). Mice were 12 weeks of age. (B) Adipose tissue weight from the inguinal subcutaneous fat pad, perigonadal fat pad and perirenal fat pad in NARKO female mice with their respective controls. Results represent the mean ± SEM. *p<0.05.

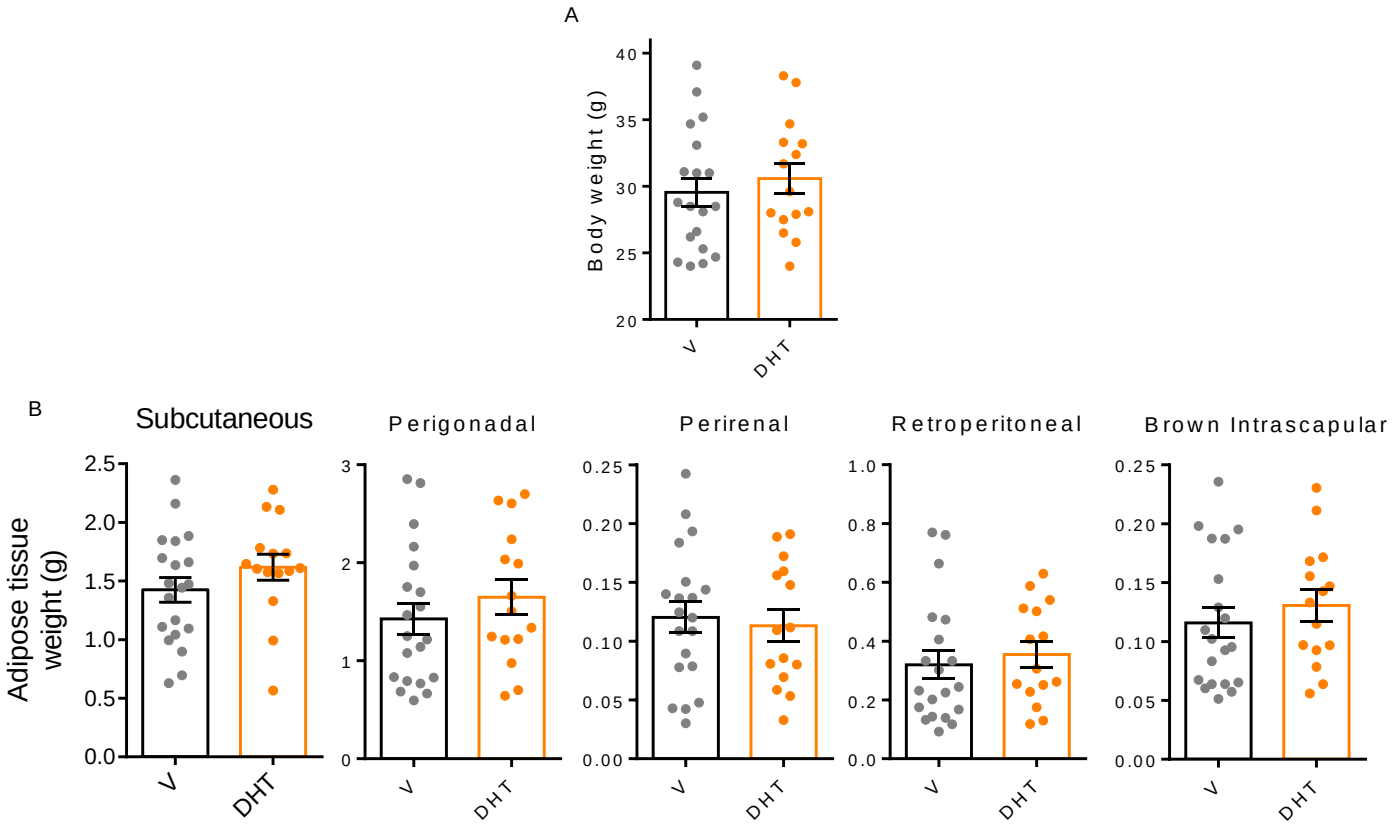

Figure S4. Body weight and adipose tissue mass in WT mice with i.c.v. infusion of DHT.
Female mice were fed WD for 9 weeks followed by i.c.v. infusion of V or DHT for 4 weeks. (A) Body weight and (B) Fat pads weight at the end of the 4 weeks of perfusion. Values represent the mean ± SEM (n=15-20).

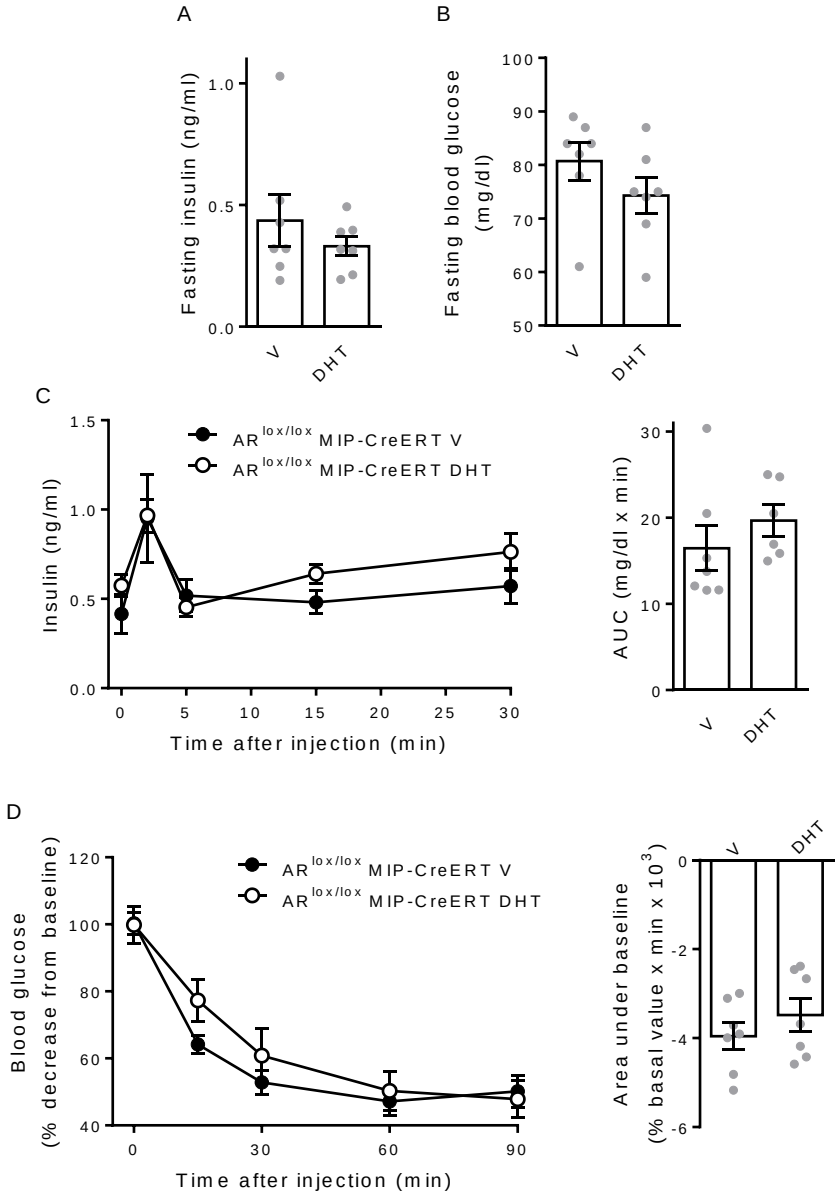

Figure S5. Characterization of the AR^{lox} MIP-CreERT mouse. (A) Fasting blood glucose. (B) Fasting serum insulin levels. (C) Insulin secretion during a GSIS and its AUC. (D) Blood glucose percent decrease during an ITT and its AUC. Mice were fed on a WD and studies were performed at 8 weeks of age. (n = 6-7). Values represent the mean ± SEM.

Region of MBH	Excited	Inhibited	Non-responsive
ARC	3 (16%)	7 (37%)	9 (47%)
VMH	2 (20%)	6 (60%)	2 (20%)

Table S1: Neurons of the MBH respond to DHT treatment. Summary of the responses of recorded neurons in the ARC and VMH.